# PUBLIC WORKS AND TRANSPORTATION Solid Waste Services

#### PROGRAM:

Commercial Recycling and Waste Reduction

PROGRAM ELEMENT:

#### PROGRAM MISSION:

To provide comprehensive technical support, assistance, outreach, and training to all businesses in the County and to monitor businesses for compliance with Executive Regulations 15-04AM and 18-04 in order to improve the environment by diverting waste from disposal through recycling, waste reduction, reuse, and "buying recycled" opportunities

#### COMMUNITY OUTCOMES SUPPORTED:

- · Improved environment
- · Enhanced quality of life
- Healthy children and adults
- High quality services meeting or exceeding the expectations of County businesses

PROGRAM MEASURES	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY05 ACTUAL	FY06
Outcomes/Results:			AOTOAL	DODUCT	ACTUAL	APPROVED
Number of businesses discovered not recycling during initial site visit by Program Specialist	NA	493	210	560	173	
Number of businesses recycling in compliance with Executive Regulation109-92AM and	NA.	8,807	10,813	9,944	· · · <del>-</del>	560
Executive Regulation 15-04AM after initial site visit (or, if necessary, after issuance	1471	0,007	10,013	9,944	8,241	9,944
of first Notice of Violation) <sup>a</sup>						
Percentage of businesses recycling after initial site visit/first Notice of Violation	NA	94.7	98.1	88.5	07.0	
Service Quality:		34.7	30.1	66.5	97.9	88.5
Percentage of businesses complying with annual report requirements <sup>b</sup>	95.9	100.0	100.0	100.0	100.0	400.0
Percentage of businesses served during the fiscal year <sup>c</sup>	24.1	27.1	32.0	32.7		100.0
Percentage of survey respondents rating site visit as excellent or good	NA.	NA.	96	>90	24.5	32.7
Efficiency:		147			96	>90
Average cost per business served (\$)	112	102	84	106	445	
Businesses visited per workyear	1,353	1,431	1.696	1,370	115	110
Workload/Outputs:	1,000	1,401	1,090	1,370	1,209	1,262
Number of businesses visited by program specialists/recycling investigators	8,256	9,300	11,023	11,232	8.414	44.000
Total audience reached <sup>d</sup>	19,777	26,442	25,157	65,232	•	11,232
Total number of services provided <sup>e</sup>	21,805	12,996	28,040	25,560	66,938 26,782	33,876
Number of businesses filing initial recycling and waste reduction plans	NA NA	NA	3	6,000	20,702	27,950
Number of Annual Reports received covering previous calendar year <sup>g</sup>	327	458	593	650	, 057	500
Number of educational events held or participated in <sup>h</sup>	45	77	97	80	657	650
Inputs:			97	- 80	90	80
Expenditures (\$000)	926	948	926	1 105	007	
Workyears <sup>i</sup>	6.1	6.5	6.5	1,185	967	1,241
Notes:	0.1	0.5	0.5	8.2	7.0	8.9

<sup>a</sup>Businesses that are judged not in compliance with Executive Regulation 109-92AM and ER 15-04AM and 18-04 during the initial site visit by the Program Specialist are given 30 days to set up a recycling program. Upon a second visit, businesses that remain out of compliance are issued a written warning (Notice of Violation) and a certain period (usually 14 days) to remedy the situation. These businesses are re-inspected after the specified period to determine if they have come into compliance. This measure includes all businesses found to be in compliance during the initial site visit or that come into compliance within the period provided by the Notice of Violation.

<sup>b</sup>Based on the estimated number of medium and large-sized businesses (according to the Dun and Bradstreet business database) which are required to file annual recycling and waste reduction reports.

<sup>c</sup>Based on the estimated number of businesses operating in the County, according to the Dun and Bradstreet business database (FY02 and FY03 = 34,311; FY04 - FY06 = 34,453).

Businesses are required to file a one-time business recycling and waste reduction plan when they start operations. As a result of ER 15-04AM enacted on February 8, 2005, plans are being requested from all businesses. Notification packets including copies of both regulations, a brochure, and a copy of the plan and filing instructions were mailed to 32,000 businesses. Since the legislation was adopted late in the fiscal year, the request for plans was not mailed until the beginning of FY06. Thus, the plans that were originally expected to be received in FY05 will begin to arrive in FY06. Subsequently, new businesses will be required to submit a business recycling plan within 30 days of operation in the County.

<sup>9</sup>Property management companies/owners file reports that cover multiple businesses in a single report.

hincludes seminars, training sessions, and outreach events conducted by various organizations and communities where program staff provided technical assistance and information on recycling, waste reduction, and "buying recycled."

Workyears are budgeted, not actual.

As of FY05, includes businesses visited by Investigators or by Program Specialists. An estimated 1,232 additional site visits will be conducted by the Investigator positions in FY06 pursuant to Executive Regulation 15-04AM. This estimate is based on the average number of complaints received per year and the expectation that 10% of businesses visited by Program Specialists will not be in compliance.

### EXPLANATION:

This program provides on-site technical and educational services to the County's more than 30,000 businesses. Although the County does not provide recycling collection services for the non-residential sector, the County requires, through Executive Regulation 15-04AM, that businesses recycle certain materials. Program Specialists spend at least 80% of their daily activities visiting businesses and meeting with managers, property management companies, and employees to help establish - or provide recommendations for improving - recycling and waste reduction programs. When the program is fully staffed with five specialists, it is expected that 10,000 sites can be visited in a year. The previous recycling regulation, Executive Regulation 109-92AM, served the County well for ten years but was superceded by ER 15-04AM, adopted February 8, 2005. The new regulation removes a number of ambiguities that businesses had used to avoid implementing fully compliant recycling programs.

PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Business owners, managers and employees; property owners; property management companies; collection contractors; recycling markets; condominium property boards; tenant associations; custodial contractors; trade organizations; Chambers of Commerce.

MAJOR RELATED PLANS AND GUIDELINES: Executive Regulation 109-92AM, Executive Regulations 15-04AM and 18-04, Montgomery County Code Chapters 48 and 56, 10-Year Comprehensive Solid Waste Management Plan, Montgomery County Policy on Waste Reduction.

dTotal businesses and individuals reached via special events, mailings, on-site visits, and telephone calls.

<sup>\*</sup>Services provided to a business include materials distributed such as brochures, labels for recycling containers, posters, recycling starter kits, etc.

Solid Waste Services

PROGRAM:

Recycling - Residential (curbside collection)

PROGRAM ELEMENT:

## PROGRAM MISSION:

To provide reliable, easy-to-use curbside collection of recyclable materials from all non-municipal single-family households in order to improve the environment by diverting waste from disposal

# COMMUNITY OUTCOMES SUPPORTED:

- Improved environment
- Enhanced quality of life
- Healthy children and adults
- High quality services meeting or exceeding the expectations of County residents

PROGRAM MEASURES	FY02 ACTUAL	FY03 ACTUAL	FY04	FY05	FY05	FY06 APPROVED
Outcomes/Results:			A.O.I.O.A.E	DOBALI	ACTUAL	APPHOVED
Single-family recycling rate (%) <sup>a</sup>	53.6	51.4	52.9	52.6	53.4	56.3
Service Quality:						<del> </del>
Number of missed collection complaints <sup>b</sup>	6,557	8,260	4,518	8,500	4,060	8,500
Number of other customer complaints <sup>b</sup>	510	653	740	800	844	-,
Missed collection complaints per 1,000 households served	32.8	40.8	22.2	41.3	19.8	
Efficiency:				71.0	19.0	41.0
Average cost per household served (\$)	48.18	50.98	61.18	91.15	80.89	76.03
Households served per workyear	14,199	11,432	10,339	10,078	10,946	. 0.00
Workload/Outputs:		,	10,000	10,070	10,946	11,357
Number of households served (non-municipal) <sup>c</sup>	200,206	202,411	203.673	205,587	205,561	207,258
Number of service requests	43,710	39,886	46,918	57,750	59.169	60,000
Number of calls for information <sup>b</sup>	12,567	28,446	26,031	31,900	15,845	,
Inputs:				01,000	10,043	30,000
Program expenditures (\$000) <sup>d</sup>	9,647	10,318	12,461	18,739	16,628	15,758
Workyears	14.1	17.7	19.7	20.4	18.8	18.2
Notes:	<del></del>			20.7	10.0	10.2

<sup>a</sup>The recycling rate is computed as the percentage recycled by weight. The single-family recycling rate reported here includes both municipal and non-municipal single-family households. While the Residential Recycling (curbside collection) program plays a significant role in determining the County's recycling rate, a number of other Division of Solid Waste Services programs contribute greatly to that outcome, including Mixed Paper Recycling, the Recycling Center (Comingled Container Material Recovery Facility), Vacuum Leaf Collection, Dickerson Composting Facility, Waste Reduction, Solid Waste Enforcement, Volunteer Coordination/Public Outreach, Support for Recycling Volunteers, Automation, and others.

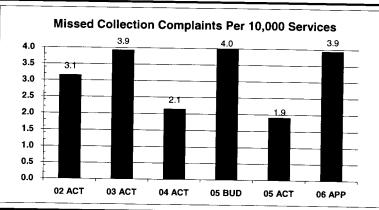
<sup>b</sup>All information on calls is based on the Division's "OSCAR" computerized call-tracking system and does not include visits to the Website, which provides extensive information.

 $^{\circ}$ Based on the billing database at the middle of the fiscal year.

Expenditures include only direct costs for the County Recycling Collection Program; other budgetary programs affecting recycling (see footnote "a") are not included, nor are indirect costs paid by the Solid Waste Fund.

# **EXPLANATION:**

This program encompasses the collection of recyclables from non-municipal single-family households, including multi-family buildings with six or fewer dwelling units. The increase in the complaint rate in FY03 reflects the difficulties that collection companies had retaining experienced employees and performance problems experienced with several contractors. Those performance problems have been corrected. In FY04, new collection contracts had just begun in 7 of 13 collection areas, and by the end of FY05, all areas will have new contracts. A request for additional large rolling carts was approved for FY05, but the anticipated increase in missed collections did not materialize.



PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Collection contractors, single-family residents, recycling facility operator, recycling markets.

MAJOR RELATED PLANS AND GUIDELINES: Comprehensive Solid Waste Management Plan.

PROGRAM ELEMENT:

Solid Waste Services

PROGRAM:

Refuse Collection - Residential

# PROGRAM MISSION:

To provide reliable, convenient curbside residential collection in designated areas of the County while achieving a high degree of customer satisfaction

# COMMUNITY OUTCOMES SUPPORTED:

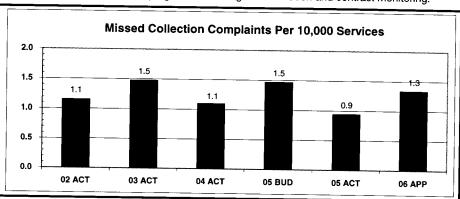
- Improved environment
- · Enhanced quality of life
- Healthy children and adults

PROGRAM MEASURES	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY05	FY06
Outcomes/Results:	AOTOAL	ACTUAL	ACTUAL	BODGE	ACTUAL	APPROVED
Service Quality:						
Number of missed collection complaints	1,686	3,245	2,614	3,135	1,741	3,000
Number of other customer complaints <sup>a</sup>	507	652	485	650	.,	•
Complaints per 1,000 households served	6.0	7.7	5.7	7.6		
Efficiency:	<u> </u>					0.3
Average cost per household served (\$)	60.03	63.02	63.08	62.79	57.73	63.05
Average cost per ton collected (\$) <sup>b</sup>	68.74	67.75	64.51	73.75	61.87	63.07
Workload/Outputs:	<u> </u>			· · · · · · · · · · · · · · · · · · ·		<del>-</del>
Number of households served <sup>c</sup>	84,788	85,085	85,034	85,192	86,252	86,410
Tons of refuse collected <sup>d</sup>	74,044	79,153	83,152	72,531	80,472	86,382
Number of service requests	23,492	26,529	25,005	24,300	24,414	25,000
Number of calls for information	10,118	9,482	8,678	9,650	•	10,000
Inputs:				2,200	0,021	10,000
Expenditures (\$000) <sup>e</sup>	5,090	5,362	5,364	5,349	4,979	5,448
Workyears <sup>f</sup>	12.3	11.9	10.7	11.4	11.7	
Notes:	,		10.7	11.4	11.7	12.9

<sup>&</sup>lt;sup>a</sup>Data are from the Division's "OSCAR" computerized call-tracking system and do not include visits to the Website, which provides extensive

# **EXPLANATION:**

This program consists of refuse collection services provided by the County to singlefamily households in the areas designated for County refuse collection (primarily in the southern third of the County). Collection is performed by private haulers under contract to the County. The increase in FY03 reflects the difficulties that collection companies have had in retaining experienced employees and performance problems experienced with several contractors. Those performance problems have been corrected.



PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Collection contractors, single-family residents

MAJOR RELATED PLANS AND GUIDELINES: Comprehensive Solid Waste Management Plan.

<sup>&</sup>lt;sup>b</sup>The average cost per ton collected increased in FY02 due to greater recycling (resulting in less refuse being set out for disposal). The contracted unit prices per home do not vary with the actual weight of refuse set out.

<sup>&</sup>lt;sup>c</sup>Based on the billing database at the middle of the fiscal year.

dCounty refuse contract collection trucks only, per in-bound County truck scales records. Does not include resident self-hauled waste or bulky pickups, and is not adjusted as in prior versions of this display for non-processibles (construction and demolition materials). The FY03 increase may be due to wet weather.

eTotal operating expenses for the Collection Fund (see Schedule F2 in the County Comprehensive Financial Statement for actuals). Does not include indirect costs charged to the Fund (approximately \$100,000 per year). Accounting is on a GAAP (Generally Accepted Accounting Principles - e.g. accrual) basis and typically does not differ significantly from an expenditure (cash) basis. Most expenses are for private collection contracts.

Workyears correspond to the total workyears budgeted for all Collection Fund programs, including administration and contract monitoring.

Solid Waste Services

PROGRAM:

Resource Recovery Facility

PROGRAM ELEMENT:

### PROGRAM MISSION:

To reduce the amount of material that must be disposed by landfilling, maximize the recycling of ferrous materials remaining in the waste after other ferrous reduction and recycling efforts, and recover the useful energy content of this renewable energy resource in an environmentally sound and cost-effective manner, while minimizing truck traffic associated with waste hauling

# COMMUNITY OUTCOMES SUPPORTED:

- Provide high-value services
- Protect and enhance the environment
- Improve the quality of life for citizens

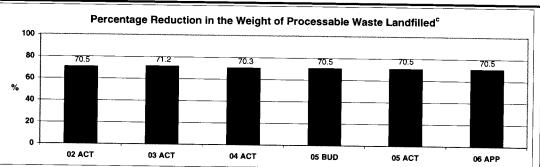
PROGRAM MEASURES	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY05 ACTUAL	FY06 APPROVED
Outcomes/Results:					HOTOAL	ATTIOVED
Percentage reduction in processable waste <sup>b</sup> landfilled <sup>c</sup>	70.5	71.2	70.3	70.5	70.5	70.5
Value of electricity sold (\$000)	12,578	14,152	15,215	12,923	13,102	
Truck trips removed from County roads due to rail link	25,709	27,809	28,449	28,178	25,541	,
Service Quality:			20,110	20,170	25,541	28,667
Processable waste bypassed and disposed elsewhere (tons) <sup>d</sup>	0	0	6,405	0	0	
Percentage of operating time the Resource Recovery Facility	100	100	100	100	-	100
(RRF) is in compliance with permits <sup>e</sup>		100	100	100	100	100
Efficiency:						
Average net operating cost per ton (\$)	23.82	21.09	21.78	25.19	20.71	00.40
Average net debt service cost per ton (\$) <sup>f</sup>	51.09	45.30	42.36	42.66		23.40
Net energy recovery rate (kilowatt hours sold per ton processed)	579	593	605	42.00 575	47.92	42.16
Net operating cost per kilowatt hour produced (\$)	0.11	0.11	0.11		621	575
Workload/Outputs:	0.11	0,11	0.11	0.12	0.11	0.11
Waste processed at the Resource Recovery Facility (tons) <sup>9</sup>	578,450	625,710	640,101	604.000	574.000	
Ferrous materials recovered or recycled at the RRF (tons)	16,447	19,649		634,000	574,663	645,000
Electricity generated (megawatt hours)	391,853	368,987	19,627	17,752	17,543	18,060
Inputs:	001,000	300,307	387,141	373,426	356,637	370,875
Total contract cost to County (\$000) <sup>h</sup>	43,334	41,544	44.050	40.047	00.400	
Workyears (County employees)	43,334	•	41,058	43,017	39,436	42,284
Notes:		3.0	2.9	2.9	2.9	3.3

County contract costs covering net debt service of the Resource Recovery Facility and transfer station improvements (built and operated by the Northeast Maryland Waste Disposal Authority). Debt service ends 4/1/16. Does not include nonfinanced capital (\$2.191 million in FY04, \$668,277 in FY05), noncontract operating costs (\$785,123 in FY05, mostly for risk management), or the cost of the County workyears shown (\$275,134 in FY05).

<sup>9</sup>Tons actually processed (this differs from loaded on rail from the transfer station). Does not include non-processable tonnage (124,375 tons in FY05). hTotal County contract costs for the program. Includes transfer station operation for disposal waste and rail link as well as Resource Recovery Facility operation and insurance. Does not include residue disposal (about \$12 per input ton), risk management costs, non-debt financed capital outlay (\$676,543 in the FY05 actual, \$694,943 in the FY06 budget), chargebacks to the Department of Environmental Protection for laboratory services (\$29,926 in FY05 for 0.24 workyears and lab costs), and certain other administrative and indirect County costs (see footnote f, above).

# **EXPLANATION:**

This graph shows the weight reduction (in tons) that must be landfilled after transferring to, and processing at, the Resource Recovery Facility as a percentage of the tons of processable waste delivered to the County transfer station. Landfill volume savings are greater. See also notes (b) and (c) above.



PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Montgomery County Department of Environmental Protection, Northeast Maryland Waste Disposal Authority, Covanta Energy, CSX.

MAJOR RELATED PLANS AND GUIDELINES: Bond Indenture, Solid Waste Management Plan, Waste Disposal Agreement, Service Agreement, Electricity Sales Agreement, Rail Transportation Agreement.

Ferrous materials are substances that contain iron.

<sup>&</sup>quot;Processable waste" consists of all types of solid waste except construction and demolition debris - concrete, rock, rebars, etc.

<sup>&</sup>lt;sup>c</sup>Percentage reduction in weight. The reduction in the use of landfill volume is 10 -15% greater (e.g. 80 to 95%) due to the high density of ash.

dIf processable waste received cannot be handled by the Resource Recovery Facility (e.g. because of capacity limitation), it can be disposed of out-of-County through an existing long-term contract. 6,405 tons were bypassed in FY04 as a pilot test to assure logistics, not due to capacity limitation. \*For historical and dailly emisions data, see http://www.montgomerycountymd.gov/swstmpl.asp?url=/Content/DPWT/solidwaste/facilities/rrf\_cem.asp.

# Solid Waste Services

PROGRAM:

Vacuum Leaf Collection

PROGRAM ELEMENT:

### PROGRAM MISSION:

To ensure the efficient collection and recycling of seasonal leaf fall in the area of the County designated for County leaf collection by vacuum truck

# COMMUNITY OUTCOMES SUPPORTED:

- Improved environment
- Safe streets
- Convenient, high quality service meeting or exceeding the expectations of County residents

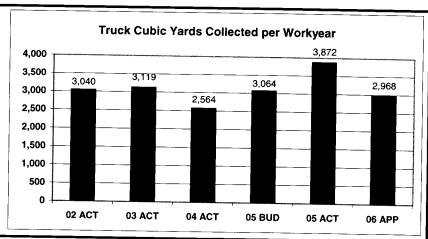
PROGRAM MEASURES	FY02 ACTUAL	FY03 ACTUAL	FY04 ACTUAL	FY05 BUDGET	FY05	FY06
Outcomes/Results:	AUTORE	AOIOAL	ACTUAL	BUDGET	ACTUAL	APPROVED
Tons of leaves delivered and composted <sup>a</sup>	17,509	28,014	17,608	18,698	18,214	21,043
Service Quality:						
TO BE DEVELOPED						
Efficiency:						
Tons of leaves composted per workyear	329	500	373	255	440	
Average cost per ton composted (\$) <sup>b</sup>	250	200	212	355	440	399
Truck cubic yards of leaves collected per workyear	3,040	3,119	2,564	238	249	224
Average cost per household served (\$)	37	48	2,304	3,064	3,872	2,968
Workload/Outputs:		40	31	37	38	40
Households served	117,527	117,616	118,727	110.040	440.075	
Truck cubic yards of leaves collected	161,663	174,688	•	118,948	119,075	119,294
Inputs:	101,000	174,000	120,998	161,494	160,289	156,709
Expenditures (\$000) <sup>b</sup>	4,382	5,609	2.704	4.450	4.500	
Workyears <sup>c</sup>	53.2	56.0	3,724	4,456	4,529	4,724
Notes:		30.0	47.2	52.7	41.4	52.8

<sup>a</sup>All years include approximately 410 tons of leaves from municipalities. FY03 tonnage is high due to unusual rain and snow. <sup>b</sup>Expenditures include charges from the Highway Maintenance Section, plus an allocated cost for composting the leaves at the County's Yard Trim Composting Facility (the latter is treated as an interfund transfer beginning in FY04). Total costs are therefore influenced by purchases of equipment at the composting facility. Indirect costs and certain administrative and other related costs are not included. The increases in FY03 were affected by weather.

<sup>c</sup>Workyears include both permanent and temporary positions in the Highway Maintenance Section. The FY02 Actual workyears do not include leave charged to the program.

### **EXPLANATION:**

Under the County's Leaf Vacuuming Program, leaves are vacuumed from curbsides in the Leaf Vacuuming District - roughly the lower 1/3 of the County. The work is seasonal, performed by both permanent and temporary staff of the Highway Maintenance Section. All leaves collected are composted. Weather influences both cubic yards, tonnage and cost. In FY03, weather was very poor, extending the collection period. In FY05, about 90% of the leaves fell by the second week of November and conditions were perfect for the residents to rake leaves to the curb. Highway Services was able to complete the bulk of the collection by mid-December.



PROGRAM PARTNERS IN SUPPORT OF OUTCOMES: Highway Maintenance Section, Yard Trim Composting Facility operating contractor, area residents.

MAJOR RELATED PLANS AND GUIDELINES: Comprehensive Solid Waste Management Plan.